### TABLE OF CONTENTS

PROBLEM		PAGE
NUMBER	DESCRIPTION	NUMBER
	INDEXES EQUIPMENT INDEX ACTION INDEX	ii iii
	ORIGINATORS INDEX	iv
	DUE DATE SUMMARY	V
	PROBLEMS	
<u> 15560</u> *	LAU-127; LAUNCHER FAILED TEST	
16105	LAU-127; RAIL ASSEMBLY GOUGED	5
16631	LAU-127; FWD DAMPNER WOULD NOT RETRACT TO DOWNLOAD MISSILE	7
16632	LAU-127; NITROGEN BOTTLE UNSECURED	11
17010	LAU-127: WEARING/CHAFFING OF MISSILE LAUNCHER	16
17034	LAU-127; NITROGEN RECEIVER FAILURE	18

NOTE: OPEN problems denoted by asterisk (\*) following problem number.

PROBLEM NO: 15560 OPEN

		NOMENCLATURE	PART/DOC. NO.	FSC	NIIN	NALC
END ITEM	:	MISSILE LAUNCHER	3820470-135	1440	01-378-8014	1

LAUNCHER, MISSILE 497HN0100-1 9999 99-999-9999

EI CNTRL NO: 01-0043

PROB BRIEF: LAU-127; LAUNCHER FAILED TEST

**PROBLEM**: Launcher fails test.

DESCRIPTION

PREVENTIVE : Not determined.

ACTION

CORRECTIVE: Not determined.

ACTION

	SOURCE	TYPE	DOCUMENT NO.	DATE	DR STATUS
OCCURRENCES:	VFA-122	CODR/EIR	R09355-01-0050	13FEB01	CLOSED
	VFA-122	CODR/EIR	R09355-01-0049A	01FEB01	CLOSED
	VFA-122	CODR	R09355-00-0275	040CT00	CLOSED
	VFA-27	CODR	R65185-00-0021	08SEP00	OPEN
	NAS LEMOORE AIMD	PQDR II	N44321-96-0098	15MAY96	CLOSED *
	USS INDEPENDENCE	EIR	V03362-94-0063	17MAY94	CLOSED *
	(CV-62)				
	USS LINCOLN (CVN-72)	PQDR I	V21297-93-0095	250CT93	CLOSED *
	USS LINCOLN (CVN-72)	PQDR I	V21297-93-0096	250CT93	CLOSED *

### \* ACTION REPORTED IN PREVIOUS PUBLICATION

ACTION : VFA-122 CODR/EIR R09355-01-0050 13FEB01 CLOSED

PART/DOC. NO. FSC NIIN NALC

**END ITEM** : 497HN0100-1

NOMEN: LAUNCHER, MISSILE

**s/N:** 4002733

**SUB-ASSY**: 7002613-1 5340 01-381-0015

NOMEN: COVER, ACCESS

**FAILED PART:** 3825025 5360 01-461-8243

NOMEN: SPRING ASSEMBLY

### DESCRIPTION:

During routine maintenance, when aft cover was removed, a noticeable crack was found around spring button. Further investigation revealed spring assembly part number 3825025 was broken and would not allow spring button to function properly.

PROBLEM NO: 15560 (Continued)

#### ACTION TAKEN:

27FEB01: Site visit by RTSC Indianapolis personnel to investigate problem.

05MAR01: Findings: Broken spring assemblies are a known problem, though not widespread. Most probable cause is fatigue induced over time by normal wear.

Conclusions: Broken spring assembly was due to fatigue. Recommend replacement of spring assembly P/N 3825025 and return to Ready for Issue status. VFA-122's participation in AWCAP is greatly appreciated. Closing action.

ACTION: ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC INVESTIGATE COMPLETE 05MAR01

INDIANAPOLIS/CNPCOO

REFERENCES: IDENTIFICATION REFERENCE BRIEF

PART/DOC. NO.

VFA-122 MESSAGE 130130ZFEB01 PROBLEM REPORTED RTSC INDIANAPOLIS SITE VISIT 27FEB01 INTERIM RESPONSE RTSC INDIANAPOLIS/CNPCOO MESSAGE CLOSING RESPONSE

050850ZMAR01

ACTION: VFA-122 CODR/EIR R09355-01-0049A 01FEB01 CLOSED

FSC

NIIN

NALC

**FAILED PART:** 3825025 5360 01-461-8243

NOMEN: SPRING ASSEMBLY

### DESCRIPTION:

During routine maintenance, when aft cover was removed, a noticeable crack was found around spring button. Further investigation revealed spring assembly part number 3825025 was broken and would not allow spring button to function properly.

### ACTION TAKEN:

28FEB01: RTSC Indianapolis personnel investigating problem during on-site visit.

05MAR01: Findings: Broken spring assemblies are a known problem, though not widespread. Most probable cause is fatigue induced over time by normal wear.

Conclusions: Broken spring assembly was due to fatigue. Recommend replacement of spring assembly part number 3825025, and return to Ready for Issue status. VFA-122's participation in AWCAP is greatly appreciated. Closing action.

## AIRBORNE MISSILE LAUNCHER (LAU-127) ACTIVE AIRBORNE WEAPONS CORRECTIVE ACTION PROGRAM

PROBLEM NO: 15560 (Continued)

ACTION: ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC INVESTIGATE COMPLETE 05MAR01

INDIANAPOLIS/CNPCOO

REFERENCES: IDENTIFICATION REFERENCE BRIEF

VFA-122 MESSAGE 011300ZFEB01 PROBLEM REPORTED RTSC INDIANAPOLIS/CNPCOO MESSAGE INTERIM RESPONSE

281544ZFEB01

RTSC INDIANAPOLIS/CNPCOO MESSAGE CLOSING RESPONSE

050805ZMAR01

ACTION: VFA-122 CODR R09355-00-0275 040CT00 CLOSED

PART/DOC. NO. FSC NIIN NALC

**END ITEM** : 497HN0100-1

NOMEN: LAUNCHER, MISSILE

**S/N:** 4002773

**FAILED PART:** 497HN0100-1

NOMEN: LAUNCHER, MISSILE

#### DESCRIPTION:

While launcher was removed for maintenance it was noted that the forward cover (Technical Manual NAVAIR 11-75A-514 , WP 017 00, pg 4, index 6) had approximately 12 square inches of RAM coating/primer separating from metal.

### ACTION TAKEN:

170CT01: Repair and disposition instructions provided by RTSC Indianapolis. Repair launcher as required. VFA-122's participation in AWCAP is greatly appreciated. Closing action.

ACTION: ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC CLOSE PROBLEM COMPLETE 170CT01

INDIANAPOLIS/CNPCOO

REFERENCES: IDENTIFICATION REFERENCE BRIEF

VFA-122 MESSAGE 040130ZOCT00 PROBLEM REPORTED RTSC INDIANAPOLIS/CNPCOO PHONCON PROBLEM CLOSING

170CT01

ACTION: VFA-27 CODR R65185-00-0021 08SEP00 OPEN

PART/DOC. NO. FSC NIIN NALC

**END ITEM** : 3820470-135 1440 01-378-8014

NOMEN: MISSILE LAUNCHER

**S/N:** 4002387

**FAILED PART:** 3820470-135 1440 01-378-8014

NOMEN: MISSILE LAUNCHER

**s/N:** 4002387

PROBLEM NO: 15560 (Continued)

#### **DESCRIPTION:**

The ground crew performed AIM-120 end to end test and the subject launcher caused substation fail on aircraft BUNO: 164010 station eight. A different launcher set was tested on same aircraft and substation resulting 4.0. The subject launcher was loaded on a different aircraft and tested with same results. The launcher was turned into AIMD for repair and was returned with zero discrepancies noted. The subject launcher was mounted on a known good LAU-115 and loaded on a different aircraft BUNO: 164025 station eight and checked 4.0. The AIM-120 was loaded on a launcher resulting in substation failure. Two different missiles were loaded with repeated substation failures on the subject launcher. CFA response was requested. The launcher was turned into the USS Kitty Hawk AIMD.

#### ACTION TAKEN:

17MAR01: Request for status.

27MAR01: Request prepare launcher as Engineering Investigation

exhibit and ship to FST.

28APR01: Exhibit shipping data.

ACTION SUMMARY

: ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS INVESTIGATE REPORT RTSC 15DEC00 OPEN

INDIANAPOLIS/CNPCOO

REFERENCES: IDENTIFICATION

REFERENCE BRIEF VFA-27 MESSAGE 081800ZSEP00 PROBLEM REPORTED VFA-27 MESSAGE 171200ZMAR01 PROBLEM FOLLOW-UP RTSC INDIANAPOLIS MESSAGE 271206ZMAR01 RESPONSE TO PROBLEM VFA-27 MESSAGE 280258ZAPR01 EI EXHIBIT SHIPMENT

PROBLEM NO: 16105 CLOSED

PART/DOC. NO. NOMENCLATURE FSC NIIN NALC

1440 01-378-8014 END ITEM : MISSILE LAUNCHER 3820470-135

**EI CNTRL NO:** 01-0039 ١

PROB BRIEF: LAU-127; RAIL ASSEMBLY GOUGED

PROBLEM : Launcher rail assembly was gouged below the umbilical retention

**DESCRIPTION** device assembly.

PREVENTIVE: None required.

ACTION

CORRECTIVE: If gouge is within specifications, repair launcher as needed.

ACTION

SOURCE TYPE DOCUMENT NO. DATE DR STATUS OCCURRENCES: NSATS PAX RIVER CODR N39783-00-0018 06MAR01 CLOSED VFA-137 CODR V55142-99-0076A 03NOV99 CLOSED N60530-95-0110 27DEC95 CLOSED \* NAWC CHINA LAKE CODR

### \* ACTION REPORTED IN PREVIOUS PUBLICATION

ACTION : NSATS PAX RIVER CODR N39783-00-0018 06MAR01 CLOSED

> FSC NIIN PART/DOC. NO. NALC **:** 3820470-135 1440 01-378-8014 END ITEM NOMEN: MISSILE LAUNCHER **S/N:** 5000138 : 7002738-1 1440 01-462-1869 SUB-ASSY NOMEN: LAUNCHER SUBASSEMBLY 1420 01-378-6349

> > NOMEN: SUBASSY, LAUNCHER

### DESCRIPTION:

**FAILED PART:** 7002739-1

LAU-127A/A launcher rail cracked in flight while carrying CATM-9L on F-18E station 1.

### ACTION TAKEN:

13MAR01: Ship launcher to RTSC Indianapolis for Engineering Investigation.

04SEP01: Findings: The front snubber ramps were discolored with a dark film that could be rubbed off. There was significant wear in the rail track from the front hanger on the side that cracked. It appeared to be deeper than what was on the other side. There was significant wear on the end of the snubber on the side opposite of the crack. The aft dampener had a crack across one of the cross members. Two screws on the side of the aft dampener had torque

PROBLEM NO: 16105 (Continued)

levels measuring 30 to 50 IN-LBS. Most measured 100 IN-LBS, well above the specified torque of 70  $\,$  10 IN-LBS. Three screws on the under side measured 20 - 25 IN-LBS. The specified torque for these screws is 70  $\,$  10 IN-LBS.

All torque striping on all screws was intact. There was no wear in the rail track at the aft hanger location. It appeared as though the left front snubber had, at one time, run out of travel while a missile was being flown which was evidenced by wear on the ramp. This is on the opposite side from where the crack occurred. The launcher was disassembled, the empty rail was dimensionally measured for straightness and rail slot width. No anomalies were found, although the slot width measured high at 0.270 inches. The requirement is 0.262 0.010 inches. Flatness of the bottom surface of the rail in the unrestrained condition is 0.109 inches. This rail measured 0.033 inches. The material type and heat treat were within specification.

Conclusions: Analysis of the failure indicates high cycle fatigue. There is evidence that the front dampener ramps may have been lubricated at one time. In effect, if this were the case, the dampener would not hold the missile hanger in place, thereby imparting higher loads into the rail track. A worn missile hanger, along with the rail wear and large slot size, could allow the front dampener to run out of travel and not be able to dampen the missile movement.

Recommendations: Ensure the dampener ramps and dampeners are not lubricated. Ensure that aft dampener assembly mounting screws are torqued properly. Visually check front missile hangers for excessive wear. NSATS Patuxent River's participation in AWCAP is greatly appreciated. Closing action.

ACTION: ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC INVESTIGATE COMPLETE 04SEP01

INDIANAPOLIS/CNPCOO

REFERENCES: IDENTIFICATION REFERENCE BRIEF

NSATS PAX RIVER MESSAGE 062010ZMAR01 PROBLEM REPORTED RTSC INDIANAPOLIS/CNPCOO MESSAGE INTERIM RESPONSE

131451ZMAR01

RTSC INDIANAPOLIS/CNPCOO MESSAGE CLOSING RESPONSE

041435ZSEP01

PROBLEM NO: 16631 CLOSED

**END ITEM:** MISSILE LAUNCHER 3820470-135 1440 01-378-8014 LAUNCHER, MISSILE 497HN0100-1 9999 99-999-9999

**EI CNTRL NO:** 00-0012

PROB BRIEF: LAU-127; FWD DAMPNER WOULD NOT RETRACT TO DOWNLOAD MISSILE

PROBLEM: During downloading operation, missile would not travel aft due to

**DESCRIPTION** the forward dampener not retracting.

PREVENTIVE: None determined.

ACTION

CORRECTIVE: None determined.

ACTION

	SOURCE	TYPE	DOCUMENT NO.	DATE	DR STATUS	
OCCURRENCES:	VFA-115	CODR	R09604-01-0026A	24JUL01	CLOSED	1
	VFA-122	CODR/EIR	R09355-00-0171	12MAY00	CLOSED	
	VFA-122	CODR/EIR	R09355-00-0172	12MAY00	CLOSED	l
	VX-9	CODR	R55646-99-0044	040CT99	CLOSED *	l
	VX-9	CODR	R55646-99-0045	040CT99	CLOSED *	ĺ
	VX-9	CODR	R55646-99-0047	040CT99	CLOSED *	ı

### \* ACTION REPORTED IN PREVIOUS PUBLICATION

ACTION: VFA-115 CODR R09604-01-0026A 24JUL01 CLOSED

PART/DOC. NO. FSC NIIN NALC

**END ITEM** : 497HN0100-1

NOMEN: LAUNCHER, MISSILE

S/N: UNKNOWN

**FAILED PART:** 497HN0100-1

NOMEN: LAUNCHER, MISSILE

### DESCRIPTION:

Ordnance branch personnel received launcher from AIMD and installed on aircraft. Following release and control test by avionics personnel, station was loaded in accordance with applicable technical publication. During postflight weapon download, discovered CATM-9M stuck to LAU-127B/A launcher. AIMD personnel removed top and bottom mech assembly screws on launcher allowing ordnance personnel to download missile. NAWC DET Lemoore FWST personnel examined launcher rail and missile hangers for damage with no discrepancies noted. Launcher was turned in to AIMD for ECP-0019 incorporation.

PROBLEM NO: 16631 (Continued)

#### ACTION TAKEN:

30JUL01: Recommend action be taken to ensure that until the arrival of LAU-127C/A launchers for fleet use on F/A-18E/F aircraft, ordnance personnel must ensure that AIM/CATM-9 missiles are only loaded on LAU-127A/A and LAU-127B/A launchers with ECP-0019 modifications incorporated. VFA-115's participation in AWCAP is greatly appreciated. Closing action.

ACTION: ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC CLOSE PROBLEM COMPLETE 30JUL01

INDIANAPOLIS/CNPCOO

REFERENCES: IDENTIFICATION REFERENCE BRIEF

VFA-115 MESSAGE 241731ZJUL01 PROBLEM REPORTED RTSC INDIANAPOLIS/CNPCOO CFA REVIEW PROBLEM CLOSING

30JUL01

ACTION: VFA-122 CODR/EIR R09355-00-0171 12MAY00 CLOSED

PART/DOC. NO. FSC NIIN NALC

**END ITEM** : 497HN0100-1

NOMEN: LAUNCHER, MISSILE

**s/N:** 4002970

**SUB-ASSY**: 7002760-7 1440 01-408-6641

NOMEN: DETENT ASSEMBLY

**FAILED PART:** 7002769-1 5340 01-332-2343

**NOMEN:** DAMPNER, FORWARD

#### DESCRIPTION:

During download of CATM-9M missile from FA-18F (BUNO 165670) station one LAU-127B/A, forward bottom dampner of launcher would not disengage from missile hanger to facilitate download of missile. In an attempt to free forward bottom dampner with screwdriver the launcher rail was damaged. Missile was removed by loosening the four retention locking mechanism screws to relieve tension on the dampner. This launcher mated with missile was flown on two flights for 2.9 flight hours. Removed and replaced LAU-127B/A. Request engineering investigation. CFA response requested.

### ACTION TAKEN:

23MAY00: Request ship LAU-127B/A, S/N 4002970, as Engineering Investigation exhibit. Ship via fastest traceable means to Raytheon Technical Services Company.

31MAY00: LAU-127 launcher shipped 000525 under TCN N630420146B959. 15FEB01: ECP under development to correct problem. This is closing action.

## AIRBORNE MISSILE LAUNCHER (LAU-127) ACTIVE AIRBORNE WEAPONS CORRECTIVE ACTION PROGRAM

PROBLEM NO: 16631 (Continued)

ACTION: ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC INVESTIGATE COMPLETE 15FEB01

INDIANAPOLIS/CNPCOO

REFERENCES: IDENTIFICATION REFERENCE BRIEF

VFA-122 MESSAGE 120130ZMAY00 PROBELM REPORTED RTSC INDIANAPOLIS/CNPCOO MESSAGE INITIAL RESPONSE

231141ZMAY00

NAS LEMOORE AIMD MESSAGE 310708ZMAY00 AIRCRAFT ARMAMENT EQUIPMENT

SHIPMENT

RTSC INDIANAPOLIS CFA REVIEW 15FEB01 REPORT CLOSING

ACTION: VFA-122 CODR/EIR R09355-00-0172 12MAY00 CLOSED

PART/DOC. NO. FSC NIIN NALC

**END ITEM** : 497HN0100-1

NOMEN: LAUNCHER, MISSILE

**S/N:** 4002973

SUB-ASSY: 7002760-7 1440 01-408-6641

NOMEN: DETENT ASSEMBLY

**FAILED PART:** 7002769-1 5340 01-332-2343

NOMEN: DAMPNER, FORWARD

#### DESCRIPTION:

During download of CATM-9M missile from FA-18F (BUNO 165672) sta-1 LAU-127B/A, forward bottom dampner of launcher would not disengage from missile hanger to facilitate download of missile. In an attempt to free forward bottom dampner with screwdriver the launcher rail was damaged. Missile was removed by loosening the four retention locking mechanism screws to relieve tension on the dampner. This is the second occurrence of this deficiency in the first 48 hours of flying CATM-9 missiles. Launcher mated with missile was flown on four flights for 6.2 flight hours. Removed and replaced LAU-127B/A.

### ACTION TAKEN:

23MAY00: Request ship LAU-127B/A, S/N 4002973, as Engineering Investigation exhibit. Ship via fastest traceable means to Raytheon Technical Services Company.

31MAY00: LAU-127 launcher shipped 000525 under TCN N630420146B959.

15FEB01: ECP under development to correct problem. VFA's participation in AWCAP is greatly appreciated. Closing action.

ACTION: ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC INVESTIGATE COMPLETE 15FEB01

INDIANAPOLIS/CNPCOO

15FEB01

PROBLEM NO: 16631 (Continued)

REFERENCES :	IDENTIFICATION	REFERENCE BRIEF	
	RTSC INDIANAPOLIS/CNPCOO MESSAGE	INITIAL RESPONSE	
	121141ZMAY00		
	VFA-122 MESSAGE 120230ZMAY00	PROBLEM REPORTED	
	NAS LEMOORE AIMD MESSAGE 310708ZMAY00	AIRCRAFT ARMAMENT EQUIPMENT	
		SHIPMENT	

RTSC INDIANAPOLIS/CNPCOO CFA REVIEW REPORT CLOSING

PROBLEM NO: 16632 CLOSED

		NOMENCLATURE	PART/DOC. NO.	FSC	NIIN	NALC
END ITEM	:	MISSILE LAUNCHER	3820470-135	1440	01-378-8014	
		LAUNCHER, MISSILE	497HN0100-1	9999	99-999-9999	

EI CNTRL NO: 01-0044

PROB BRIEF: LAU-127; NITROGEN BOTTLE UNSECURED

**PROBLEM:** While replacing nitrogen bottle, nitrogen receiver assembly inside **DESCRIPTION** of launcher dislodged, and would not allow the removal of the bottle.

PREVENTIVE: Replace nitrogen control valve mounting screws with P/N NAS1101-3-10

(NSN 5305-00-819-1115) available from supply system. Return launcher to Ready-For-Issue status. NAVAIR 11-75A-514, IRAC Number 03, para.

3n, authorized technical manual change

CORRECTIVE: Problem caused by loose nitrogen control valves. ECP J-042

ACTION incorporated resolution for valve loosening discrepancy with longer mounting screws. Modification incorporated in lot 9 and subsequent lot production launchers.

	SOURCE	TYPE	DOCUMENT NO.	DATE	DR STATUS
OCCURRENCES:	VFA-122	CODR	R09355-01-0185	21JUN01	CLOSED
	VFA-122	CODR/EIR	R09355-01-0124	29MAR01	CLOSED
	VFA-122	CODR/EIR	R09355-01-0086	07MAR01	CLOSED
	VFA-122	CODR	R09355-01-0043	05FEB01	CLOSED
	VX-9	CODR	R55646-99-0048	040CT99	CLOSED *
	VX-9	CODR	R55646-99-0049	040CT99	CLOSED *
	VX-9	CODR	R55646-99-0050	040CT99	CLOSED *

#### \* ACTION REPORTED IN PREVIOUS PUBLICATION

ACTION: VFA-122 CODR R09355-01-0185 21JUN01 CLOSED

PART/DOC. NO. FSC NIIN NALC

**END ITEM** : 3820470-135 1440 01-378-8014

NOMEN: MISSILE LAUNCHER

**S/N:** 4002585

**FAILED PART:** 654316-3 4820 01-382-4967

NOMEN: VALVE, REGULATING

### **DESCRIPTION:**

During aircraft preflight preparation of LAU-127A, abnormal movement of the nitrogen receiver was discovered. Utilizing correct procedures, the crew member attempted to rotate the receiver counterclockwise. No resistance was noted during the removal procedure. Further investigation revealed the control valve assembly mounting screws had broken off, allowing the control valve to

PROBLEM NO: 16632 (Continued)

separate from mounting position on launcher. Engineering investigation requested, CFA response required. The nitrogen receiver is being held for investigation at AIMD NAS Lemoore. Awaiting CFA disposition instructions

#### ACTION TAKEN:

25JUN01: Background: abnormal movement of nitrogen receiver during aircraft preflight preparation of the LAU-127A/A. Further investigation revealed the control valve screws had broken off and/or backed out allowing the control valve to separate from mounting position.

Findings: The screws in the control valve were not correct. The screws were too short.

Conclusions: The control valve breaking loose was due to the short screws used to secure the control valve mounting plate to the aft dampener. Recommend repair launcher at I-level and return to service. VFA-122's participation in AWCAP is greatly appreciated. Closing action.

ACTION : ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC INVESTIGATE COMPLETE 25JUN01

INDIANAPOLIS/CNPCOO

REFERENCES: IDENTIFICATION REFERENCE BRIEF

VFA-122 MESSAGE 210630ZJUN01 PROBLEM REPORTED RTSC INDIANAPOLIS/CNPCOO MESSAGE PROBLEM CLOSING

250859ZJUN01

ACTION: VFA-122 CODR/EIR R09355-01-0124 29MAR01 CLOSED

PART/DOC. NO. FSC NIIN NALC

**END ITEM** : 497HN0100-1

NOMEN: LAUNCHER, MISSILE

**S/N:** 4002643

**FAILED PART:** 654316-3 4820 01-382-4967

NOMEN: VALVE, REGULATING

#### DESCRIPTION:

Abnormal movement of nitrogen receiver was reported during aircraft preflight preparation of the LAU-127B/A. Further investigation revealed the control valve assembly mounting screws had broken off and/or backed out allowing the control valve to separate from mounting position.

### ACTION TAKEN:

16APR01: Findings: The screws in the control valve were not correct. The screws were too short and should have been replaced by ECP042. Conclusions: Breaking loose of the control valves was due to the

## AIRBORNE MISSILE LAUNCHER (LAU-127) ACTIVE AIRBORNE WEAPONS CORRECTIVE ACTION PROGRAM

PROBLEM NO: 16632 (Continued)

wrong screws being used to secure the control valve mounting plate to the aft dampener.

Recommend I-Level repair of launcher and return to service. Refer to launcher technical manual NAVAIR 11-75A-514 for correct valve mounting screw part numbers. VFA-122's participation in AWCAP is greatly appreciated. Closing action.

ACTION: ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC CLOSE PROBLEM COMPLETE 16APR01

INDIANAPOLIS/CNPCOO

REFERENCES: IDENTIFICATION REFERENCE BRIEF

VFA-122 MESSAGE 291600ZMAR01 PROBLEM REPORTED RTSC INDIANAPOLIS/CNPCOO MESSAGE PROBLEM CLOSING

161301ZAPR01

ACTION: VFA-122 CODR/EIR R09355-01-0086 07MAR01 CLOSED

PART/DOC. NO. FSC NIIN NALC

**END ITEM** : 3820470-135 1440 01-378-8014

NOMEN: MISSILE LAUNCHER

**s/N:** 1002109

**FAILED PART:** 654316-3 4820 01-382-4967

NOMEN: VALVE, REGULATING

### DESCRIPTION:

Abnormal movement of nitrogen receiver was reported during aircraft preflight preparation of the LAU-127B/A. Further investigation revealed the control valve assembly mounting screws had broken off and/or backed out allowing the control valve to separate from mounting position.

### ACTION TAKEN:

19MAR01: Ship control valve assembly and screws to RTSC Indianpolis for engineering analysis.

16APR01: Findings: The screws in the control valve were not correct. The screws were too short and should have been replaced by ECP042. Conclusions: Breaking loose of the control valves was due to the wrong screws being used to secure the control valve mounting plate to the aft dampener.

Recommend I-Level repair of launcher and return to service. Refer to launcher technical manual NAVAIR 11-75A-514 for correct valve mounting screw part numbers. VFA-122's participation in AWCAP is greatly appreciated. Closing action.

ACTION : ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC INVESTIGATE COMPLETE 16APR01

INDIANAPOLIS/CNPCOO

PROBLEM NO: 16632 (Continued)

REFERENCES : IDENTIFICATION REFERENCE BRIEF

VFA-122 MESSAGE 071300ZMAR01 PROBLEM REPORTED RTSC INDIANAPOLIS/CNPCOO MESSAGE INTERIM RESPONSE

190950ZMAR01

RTSC INDIANAPOLIS/CNPCOO MESSAGE PROBLEM CLOSING

161301ZAPR01

ACTION: VFA-122 CODR R09355-01-0043 05FEB01 CLOSED

PART/DOC. NO. FSC NIIN NALC

**END ITEM** : 497HN0100-1

NOMEN: LAUNCHER, MISSILE

**s/N:** 4002795

**FAILED PART:** 654316-3 4820 01-382-4967

NOMEN: VALVE, REGULATING

**S/N:** 6594

#### DESCRIPTION:

During aircraft preflight preparation of the LAU-127B/A ,abnormal movement of the nitrogen receiver was evident. Utilizing procedures, crew member attempted to rotate receiver counterclockwise. No resistance was noted during removal procedures. The crew member then pulled receiver aft, removing the receiver with control valve assembly attached. Further investigation revealed control valve assembly mounting screws had broken allowing the control valve to separate from mounting position on the launcher. CFA response was requested. Holding for investigation at AIMD NAS Lemoore, and awaiting disposition instructions.

#### ACTION TAKEN:

28FEB01: It was reported that during aircraft preflight preparation, abnormal movement of the nitrogen receiver on launcher Serial Number 4002795 was noted. The crew member attempted to rotate the receiver counterclockwise. There was no resistance noted. The receiver was then pulled aft, removing the receiver with the control valve. Further investigation revealed the valve assembly mounting screws had broken allowing the valve to separate from the receiver. VFA-122 reported a crew member removed the aft cover of launcher, serial number 4002733 and noted the release button on the cover was wedged and would not retract. Further investigation revealed the spring assembly was broken and preventing retraction. Raytheon Technical Services Company, Indianapolis personnel to be on site 27 February through 1 March and will conduct an investigations on the incidents. Findings and recommendations will be forwarded via naval message upon conclusion of this investigation.

05MAR01: During the inspection of the control valve, it was evident that the nitrogen bottle had been cross-threaded. It was also noted that the attaching screws were not the correct length. In

## AIRBORNE MISSILE LAUNCHER (LAU-127) ACTIVE AIRBORNE WEAPONS CORRECTIVE ACTION PROGRAM

PROBLEM NO: 16632 (Continued)

conclusions, the cross threaded bottle required more torque than normal to remove; this extra torque pulled the short incorrect screws out and left the assembly loose in the launcher. Recommend repair launcher and return to service. VFA-122's participation in AWCAP is greatly appreciated. Closing action.

ACTION : ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC INDIANAPOLIS INVESTIGATE COMPLETE 07MAR01

REFERENCES: IDENTIFICATION REFERENCE BRIEF

VFA-122 MESSAGE 051330ZFEB01 PROBLEM REPORTED
RTSC INDIANAPOLIS MESSAGE 280812ZFEB01 PRELIMINARY RESPONSE
RTSC INDIANAPOLIS MESSAGE 051207ZMAR01 PROBLEM CLOSING

PROBLEM NO: 17010 CLOSED

NOMENCLATURE PART/DOC. NO. FSC NIIN NALC

**END ITEM :** LAUNCHER, MISSILE 497HN0100-1 9999 99-999-9999

EI CNTRL NO: 01-0042

PROB BRIEF: LAU-127: WEARING/CHAFFING OF MISSILE LAUNCHER

**PROBLEM**: Excessive metal wearing/chaffing at hanger contact points and

**DESCRIPTION** launcher rails.

**PREVENTIVE:** None determined.

ACTION

**CORRECTIVE:** None determined.

ACTION

SOURCE TYPE DOCUMENT NO. DATE DR STATUS
OCCURRENCES: VFA-122 CODR R09355-00-0012 10JAN01 CLOSED

00011 100000 00 0011 1001101 01001

ACTION: VFA-122 CODR R09355-00-0012 10JAN01 CLOSED

PART/DOC. NO. FSC NIIN NALC

**END ITEM** : 497HN0100-1

NOMEN: LAUNCHER, MISSILE

**S/N:** 1006082

**SUB-ASSY**: 7002530-4 5340 01-382-3832

NOMEN: DAMPER ASSEMBLY

**FAILED PART:** 3825154 5340 01-216-6914

NOMEN: DAMPER, AFT

#### DESCRIPTION:

During routine maintenance, abnormal wear was noted on the LAU-127 missile launcher rail and at the contact points of the missile hanger. Further investigation revealed excessive wear on the launcher forward and aft dampners. Request engineering investigation. CFA response was requested. Holding for investigation at VFA-122 ordnance work center and awaiting CFA disposition instructions.

### ACTION TAKEN:

23JAN01: Message readdressal.

28FEB01: VFA-122 reported abnormal wear noted on LAU-127B/A missile launcher rail at the contact points of missile hanger. Further investigation revealed excessive wear noted on launcher fwd and aft dampners. An on-site inspection of the discrepant LAU-127 launcher was performed by Raytheon Technical Services Company engineers. It was determined that the missile rail wear and wear of dampners are within tolerance. Recommend return launcher to service and track for

PROBLEM NO: 17010 (Continued)

further wear and degradation. VFA-122's participation in AWCAP is greatly appreciated. Closing action.

ACTION: ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC INDIANAPOLIS CLOSE PROBLEM COMPLETE 28FEB01

REFERENCES: IDENTIFICATION REFERENCE BRIEF

VFA-122 MESSAGE 100230ZJAN01 PROBLEM REPORTED
NAWC PT MUGU MESSAGE 230426ZJAN01 MESSAGE READDRESSAL
RTSC INDIANAPOLIS MESSAGE 282045ZFEB01 PROBLEM CLOSING

PROBLEM NO: 17034 CLOSED

NOMENCLATURE PART/DOC. NO. FSC NIIN NALC

END ITEM : MISSILE LAUNCHER 3820470-135 1440 01-378-8014

EI CNTRL NO: 01-0045

PROB BRIEF: LAU-127; NITROGEN RECEIVER FAILURE

**PROBLEM**: Nitrogen receiver seal cap failed.

DESCRIPTION

PREVENTIVE: Not Determined.

ACTION

**CORRECTIVE:** None Determined.

ACTION

SOURCE TYPE DOCUMENT NO. DATE DR STATUS

OCCURRENCES: NAF ATSUGI CODR/EIR N62507-00-0008 24AUG00 CLOSED

ACTION: NAF ATSUGI CODR/EIR N62507-00-0008 24AUG00 CLOSED

PART/DOC. NO. FSC NIIN NALC

**END ITEM** : 3820470-135 1440 01-378-8014

NOMEN: MISSILE LAUNCHER

S/N: UNKNOWN

**FAILED PART:** 9484901 8120 01-446-5116

NOMEN: CYLINDER, COMPRESSED

### DESCRIPTION:

Report states nitrogen receiver with MMF nitrogen inlet pressure at 3500 PSI and manifold pressure at 3200 PSI, technicians proceeded to charge nitrogen receiver. After approximately 10 seconds a loud bang followed by a loud, short hiss was heard technician discovered that the seal cap end had been blown off the seal valve.

### ACTION TAKEN:

12SEP00: Ship nitrogen receiver as exhibit to RTSC Indianapolis for engineering evaluation.

08FEB01: Findings: The filter barrel was difficult to remove, and had to be forced loose. The filter barrel is part of the mechanism that opens and closes the valve. When the bottle is screwed into a control valve a probe on the control valve pushes the filter barrel housing, which in turn opens the poppet valve. Normally, the filter barrel should slide in and out of the seal valve housing with no resistance. When the bottle is unscrewed from the launcher control valve, the seal valve returns to the closed position. On this unit the filter barrel was stuck, leaving the valve in the open position. Conclusion: It is not possible for the barrel to have gotten stuck

PROBLEM NO: 17034 (Continued)

due to shipping, handling, disassembly or the failure of another part. A dimensional check of the seal valve housing showed a smaller than specified diameter near the bottom of the bore. Machining of the seal valve housing was not done properly, causing the filter barrel to bind. With the barrel stuck, the valve was open while the bottle was being filled. It appears that the protective end cap formed a temporary seal as the pressure built up in the bottle, until the cap fractured

Recommendations: When a bottle is removed from a launcher, there is a momentary discharge of nitrogen. If the bottle continues to discharge, the valve is stuck open. Since this is a manufacturing defect, it is possible that other valves from the same lot could have the same problem. If the problem reoccurs, discard the valve and install a new one. NAF Atsugi's participation in AWCAP is greatly appreciated. Closing action.

ACTION: ACTIVITY/CODE ASSIGNMENT DUE DATE STATUS

SUMMARY RTSC INVESTIGATE COMPLETE 08FEB01

INDIANAPOLIS/CNPCOO

REFERENCES: IDENTIFICATION REFERENCE BRIEF

NAF ATSUGI MESSAGE 240144ZAUG00 PROBLEM REPORTED RTSC INDIANAPOLIS/CNPCOO MESSAGE INITIAL RESPONSE

120939ZSEP00

RTSC INDIANAPOLIS/CNPCOO MESSAGE PROBLEM CLOSING

080946ZFEB01